# Code Amendment Proposal Form

For public amendments proposed to the 2021 editions of the International Codes

**Instructions:** Upload this form and all accompanying documentation. If you are submitting your proposal on a separate sheet, make sure it includes all information requested below.

All proposals must be received by **July 23, 2021**.

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## CONTACT INFORMATION

<table>
<thead>
<tr>
<th>Name:</th>
<th>Lindsay Rogers &amp; John Berggren</th>
<th>Date:</th>
<th>11/3/2021 (Originally submitted: July 23, 2021)</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Organization or Representing Self:</td>
<td>Western Resource Advocates</td>
<td></td>
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</tbody>
</table>

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**Signature:**

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## AMENDMENT PROPOSAL

Please use a separate form for each proposal.

1) Code(s) associated with this proposal. Please use acronym: **DGC**

If you submitted a separate coordination change to another code, please indicate which code: ____________________________

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Code Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBC-xxxx</td>
<td>Denver Building Code–xxxx (code) amendments</td>
</tr>
<tr>
<td></td>
<td>(e.g., DBC-IBC, DBC-IEBC)</td>
</tr>
<tr>
<td>IBC</td>
<td>International Building Code</td>
</tr>
<tr>
<td>IEBC</td>
<td>International Existing Building Code</td>
</tr>
<tr>
<td>IECC</td>
<td>International Energy Conservation Code</td>
</tr>
</tbody>
</table>

2) Please check here if a separate graphic file is provided: ☐

*Graphics may also be embedded within your proposal below.*

3) Use this template to submit your proposal or attach a separate file, but please include all items requested below in your proposal. The only formatting needed is **BOLDING, STRIKEOUT**, AND **UNDERLINING**. Please do not provide additional formatting such as tabs, columns, etc., as this will be done by CPD.

**Code Sections/Tables/Figures Proposed for Revision:**

- DGC 2019 - Chapter 6 – Water Use Efficiency
  - 601.3.2.1 (6.3.2.1) Plumbing Fixtures and Fittings
  - TABLE 601.3.2.1 (TABLE 6.3.2.1) PLUMBING FIXTURES AND FITTINGS REQUIREMENTS

**Proposal:**

Place an “X” next to the choice that best defines your proposal: _X_ Revision _ New Text _ Delete/Substitute _ Deletion
601.3.2.1 (6.3.2.1) Plumbing Fixtures and Fittings

Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following requirements, as shown in Table 601.3.2.1 (6.3.2.1):

a. Water closets (toilets) – flushometer valve type. For single-flush, maximum flush volume shall be determined in accordance with ASME A112.19.2 B45.1 and shall not exceed 1.10 gal per flush. For dual flush, the full-flush volume shall not exceed 1.40 gal per flush. Dual-flush fixtures shall also comply with the provisions of ASME A112.19.2.

b. Water closets (toilets)—tank-type. Tank-type water closets shall be certified to the performance criteria of the USEPA WaterSense Tank-Type High-Efficiency Toilet Specification and shall have a maximum full-flush volume of 1.60 gal. Dual-flush fixtures shall also comply with the provisions of ASME A112.19.2.

b. Water closets (toilets)—tank-type. Tank-type water closets shall be certified to the performance criteria of the USEPA WaterSense Tank-Type High-Efficiency Toilet Specification and shall have a maximum full-flush volume of 1.60 gal. Dual-flush fixtures shall also comply with the provisions of ASME A112.19.2.

c. Urinals. Maximum flush volume, when determined in accordance with ASME A112.19.2/CSA B45.1, shall not exceed 0.125 gal. Flushing urinals shall comply with the performance criteria of the USEPA WaterSense Specification for Flushing Urinals. Urinals shall be non-flushing and nonwater. Nonwater urinals shall comply with ASME A112.19.19 (vitreous china) or IAPMO Z124.9 (plastic) as appropriate.

Public lavatory faucets. Maximum flow rate shall not exceed 0.25 gpm when tested in accordance with ASME A112.18.1/CSA B125.1.

e. Public metering self-closing faucet. Maximum water use shall not exceed 0.25 gal (1.0 L) per metering cycle when tested in accordance with ASME A112.18.1/CSA B125.1.

f. Residential bathroom lavatory sink faucets. Maximum flow rate shall not exceed 1.50 gpm when tested in accordance with ASME A112.18.1/CSA B125.1. Residential bathroom lavatory sink faucets shall comply with the performance requirements of the USEPA WaterSense High-Efficiency Lavatory Faucet Specification.

g. Residential kitchen faucets. Maximum flow rate shall not exceed 1.2 gpm (6.8 L/min) when tested in accordance with ASME A112.18.1/CSA B125.1. Kitchen faucets shall be permitted to temporarily increase the flow greater than 1.8 gpm (6.8 L/min) but shall not exceed 2.2 gpm (8.3 L/min) and must automatically revert to the established maximum flow rate of 1.8 gpm (6.8 L/min) upon physical release of the activation mechanism or closure of the faucet valve.

h. Residential showerheads. Maximum flow rate shall not exceed 1.85 gpm when tested in accordance with ASME A112.18.1/CSA B125.1. Residential showerheads shall comply with the performance requirements of the USEPA WaterSense Specification for Showerheads.

i. Residential shower compartment (stall) in dwelling units and guest rooms. The allowable flow rate from all shower outlets (including rain systems, waterfalls, bodysprays, and jets) that can operate simultaneously shall be limited to a total of 1.8 gpm.

Exception: Where the area of a shower compartment exceeds 2600 in.² (1.7 m²), an additional flow of 1.85 gpm shall be permitted for each multiple of 2600 in.² (1.7 m²) of floor area or fraction thereof.

j. Water-bottle filling stations. Water-bottle filling stations shall be an integral part of, or shall be installed adjacent to, not less than 50% of all drinking fountains installed indoors on the premises.

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**TABLE 601.3.2.1 (TABLE 6.3.2.1) PLUMBING FIXTURES AND FITTINGS REQUIREMENTS**

<table>
<thead>
<tr>
<th>PLUMBING FIXTURE</th>
<th>MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water closets (toilets)—flushometer single-flush valve type</td>
<td>Single-flush volume of 1.40 gal.</td>
</tr>
<tr>
<td>Water closets (toilets)—flushometer dual-flush valve type</td>
<td>Full-flush volume of 1.40 gal.</td>
</tr>
<tr>
<td>Water closets (toilets)—single-flush tank-type</td>
<td>Single-flush volume of 1.10 gal.</td>
</tr>
<tr>
<td>Water closets (toilets)—dual-flush tank-type</td>
<td>Full-flush volume of 1.40 gal.</td>
</tr>
<tr>
<td>Urinals</td>
<td>Flush volume 0.125 gal. Nonwater, no flush.</td>
</tr>
<tr>
<td>Public lavatory faucets</td>
<td>Flow rate—0.5 gpm (1.9 L/min)</td>
</tr>
<tr>
<td>Public metering self-closing faucet</td>
<td>0.25 gal (1.0 L) per metering cycle</td>
</tr>
</tbody>
</table>
### Supporting Information:

**Purpose:** The purpose of the proposed amendment is to encourage water efficiency in new development and redevelopment in Denver by instituting best management practices for indoor, outdoor, and onsite reuse practices. By reducing per capita water consumption, Denver can build water system resilience in the face of population growth and climate change.

**Reasons:** The Colorado River Basin is in the midst of an unprecedented drought and these conditions will only be exacerbated in the future by climate change and population growth. In the Front Range, water conservation is our most affordable and most reliable water supply option. Smart, integrated water and land use planning efforts today will help build water resource resiliency in Denver in the future.

**Substantiation & Works Cited:**
Many of the original fixture volumes in the DGC have been shown to be readily available a little to no cost increase. The original DGC should be moved to the DBC and updated with these more stringent standards.

All number should be verified with number of products available here:
[https://lookforwatersense.epa.gov/products/index.html](https://lookforwatersense.epa.gov/products/index.html)

**Referenced Standards:**

**Note:** List any new referenced standards that are proposed to be referenced in the code.

**Impact:**
Some of the proposed amendments listed above may result in modest increases in price for construction and design such as increased fixture/appliance costs, and increased costs of native, drought tolerant landscape design and installation. However, as noted above, these modest increases are far outweighed by the environmental and social benefits of water efficient new development.

**Note:** Discuss the impact of this proposal in this section AND indicate the impact of this amendment proposal for each of the following:

- The effect of the proposal on the cost of construction: ☒ Increase ☐ Reduce ☐ No Effect
- The effect of the proposal on the cost of design: ☐ Increase ☒ Reduce ☐ No Effect
- Is the proposal more or less restrictive than the I-codes: ☒ More ☐ Less ☐ Same

**Departmental Impact:** (To be filled out by CPD staff)

**Note:** CITY STAFF ONLY. Discuss the impact of this proposal in this section AND indicate the impact of this amendment proposal for each of the following:

- The effect of the proposal on the cost of review: ☐ Increase ☐ Reduce ☐ No Effect
- The effect of the proposal on the cost of enforcement/inspection: ☐ Increase ☐ Reduce ☐ No Effect